MINERAL RES
Whitehorse
Yukon Territory

AQUITAINE COMPANY OF CANADA LTD.

Trenching, Geophysical, Geochemical and Geological Surveys Performed Between May 1 and August 20, 1977

on the BOU Claims
Dawson Mining District
Yukon Territory

The BOU Claims lie centered about

68° 20' N Latitude
138° 09' W Longitude

on Claim Sheet 117A/6E

by
D. Noakes

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Section 43 of the Mining Act

B. R. BAXTER
Supervising Mining Recorder

for Commissioner

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1.0 Introduction

Aquitaine Company of Canada Ltd., over the summer of 1977, operated active mineral exploration programs examining the BOU Claims, in the Dawson Mining District in the Yukon Territory, acquired under the regulations of the Yukon Quartz Mining Act. Included in the exploration programs were geophysical, geochemical, geologic and trenching investigations and this report serves to document representation work performed under those titles.

2.0 Location and Status of the BOU Claims

The BOU Claims, 1 to 401 inclusive were recorded August 26, 1976 and the BOU Claims, 402 - 507 inclusive, were recorded November 1, 1976. Figure 1 shows the location of these claims, their tag numbers and claim numbers, on a topographic base. Application for a certificate of work for a two year period and application to group mineral claims were filed August 19, 1977, for the following claims:

Claim Number	Tag Number
BOU 45	YA 5328
BOU 47	YA 5330
BOU 49	YA 5332
BOU 77	YA 5360
BOU 78	YA 5361
BOU 79	YA 5362
BOU 80	YA 5363
BOU 81	YA 5364
BOU 82	YA 5365

Under a separate application for a certificate of work, the below listed claims were renewed for two years and the above listed claims were renewed for an additional two years:

Claim Number	Tag Number
BOU 37 to BOU 50	YA 5320 to YA 5330
BOU 69 to BOU 82	YA 5352 to YA 5365
BOU 118	YA 5401
BOU 120	YA 5403
BOU 122	YA 5405

3.0 Trenching Report

3.1 Introduction

The BOU Claims were staked on the basis of radiometric anomalies described in detail in the attached geophysical and geological survey reports. During July of 1977 one of these anomalies was trenched. The cost of trenching has been claimed as representation work on the 9 grouped BOU Claims, listed in section 2.0 of this report, and costs claimed are detailed in Appendix 1.

3.2 Location and Description of Trenching

A single trench was excavated in the month of July, 1977, on BOU 80 (YA 5363). The location of this trench is indicated on Figure 2 and is 315 meters (344 yds.) in a direction south 20^{o} West from BOU 80 No. 2. post.

Trenching on this bedrock outcrop required the use of a rock drill and explosives. All work was performed by hand. The finished trench measures 5 yards long, 2 yards wide and 2 yards deep. Representation work credits being claimed exceed the value as determined in accordance with Schedule of Representation Work, Yukon Quartz Mining Act, because the location of interest is not easily accessible and thus high logistical costs were incurred.

3.3 Assays of Trenched Materials

To date, no assays have been made of material excavated from the trench on BOU 80 YA 5363 though prior to the recording of the BOU Claims, several grab samples of surface materials were assayed.

4.0 Geophysical Survey Report

4.1 Introduction

Geophysical surveys were conducted on the BOU Claims in an effort to evaluate the known radiometric anomalies and to recognize new anomalies. This report describes the work performed on the claims held by Aquitaine Company of Canada Ltd. listed in section 2.0 and is intended to substantiate claims of representation work for both applications for certificates of work.

Two types of geophysical surveys were used to evaluate the BOU Claims. The primary reconnaissance method involved airborne gamma-

ray spectrometry and anomalous areas thus outlined were surveyed by ground scintillometer. Airborne surveying work credits were applied to the claims generally, as outlined in Appendix 2, while scintillometer surveying work credits, as detailed in Appendix 3, were applied both to the claims generally, and to the 9 grouped BOU Claims specifically where work locations lay within their boundaries.

4.2 Airborne Gamma-Ray Spectrometry

4.2.1 A Description of the Survey and Equipment

Gamma-ray spectrometer profiles were flown on a regular pattern over the BOU Claims to detect radioactive anomalies. The survey was conducted on July 14, 1977, using the following instrument package mounted in a Bell 206B Jet Ranger helicopter:

1) Exploranium DGRS - 1002 Gamma-Ray Spectrometer
2) Mars - 6 - Six Channel Recorder
3) Detector Package (2-9.375 x 4 crystals, 552 cu. in.)

Output records display four channels; Total Count, Uranium, Thorium and Potassium gamma radiation levels. Survey lines were flown at a terrain clearance of 150 feet and a forward speed of 60 m.p.h. In addition to the pilot, a single operator and two navigators were involved in the survey. Flight lines have been plotted as shown on Figure 3. Profiles obtained from the survey are matched to these flight lines through the use of fiducials which are simultaneously marked on the flight line and spectrometer record, thus enabling positioning of acquired data values.

4.2.2 Results and Interpretation

The spectrometer records (Figure 9) obtained through the procedure outlined in the previous section were evaluated to outline anomalies of interest. The procedure for choosing anomalies was as follows: background or normal values were established for each of the four channels of the profile records and any values which significantly exceeded those levels were noted as anomalous. Thus, radiometric values for areas other than those listed have been regarded as normal, or background, and unworthy of further investigation.

The radiometric data and a description of each anomaly are listed in Table 1, and the anomaly locations are plotted on Figure 3. Juxtaposition of anomaly locations (Figure 3) and the geology of the BOU Claims (Figure 4) indicates that anomalies are scattered through all geologic units. As a large number of lithologies are included in each unit, this result is predictable and should be expected. Anomalies cannot be grouped on the basis of this survey to indicate which of the mapped units should be eliminated from further study.

4.2.3 Conclusions and Recommendations

The airborne gamma-ray spectrometer survey of the BOU Claims has been interpreted to locate areas that produced anomalous radiometric values. The magnitude of radiometric values can be used generally as a measure of the relative importance of an anomaly, with the limitations imposed by varying thickness and extent of overburden. It is

of note that the anomalies producing the highest uranium response occurred over previously located and trenched showings.

Anomalies have been plotted in all geologic units mapped, thus it is not recommended that any units be excluded from further study. It is recommended that at least a brief examination be made of each anomalous area prior to concentrating exploration effort on specific units.

4.3 Scintillometer Surveys of Spectrometer Anomalies

4.3.1 Description and Location of the Surveys

Ground investigations and scintillometer surveys were conducted on the BOU Claims, to examine the anomalies identified by airborne gamma-ray spectrometry surveys, described in section 4.2.

Once an anomaly was relocated, using the same airborne package that was used in the initial airborne survey, one or more persons equipped with Saphymo - Stel SPP-2 NF type scintillometers traversed the anomalous area. Notes were made on lithologies and radiometric response encountered on each traverse. As scintillometer surveys were conducted to assess spectrometer defined anomalies, the locations of traverses correspond to the anomaly locations, as shown in Figure 3. Table 2 is a list of traverses matched to the anomalies they were designed to investigate.

4.3.2 Results and Interpretation

Although scintillometer surveys of the BOU Claims provided extensive ground radiometric coverage, no new showings were found. Detailed results of scintillometer surveys are listed in Table 2 in the form of both scintillometer measurements and lithological explanations of the anomalous area.

4.3.3 Conclusions and Recommendations

Scintillometer surveys of the anomalous areas, delineated by airborne gamma-ray spectrometry surveys, provided suitable explanations for those anomalies not already regarded as showings. The geologic environment having the potential for significant mineralization appears to be limited to the situation found on the showings (see attached geologic report) and other geologic units should be disregarded as potential targets. Thus, it is recommended that future radiometric examination of the BOU Claims be confined to anomalies found within the claims and that the claim groups be retained.

5.0 Geochemical Survey Report

5.1 Introduction

Geochemical exploration techniques were used, in conjunction with other exploration methods described in this report, in an attempt to outline radiometric anomalies on the BOU Claims. While airborne

gamma-ray spectrometry methods are adequate to detect radiometric anomalies over outcrop, much of the area of the claims is covered by accumulations of surficial materials, often deeply weathered, necessitating the use of indirect detection methods. The value of representation work being claimed for the BOU Claims in general, is detailed in Appendix 5.

5.2 Description and Location of the Survey

Geochemical surveys were conducted on streams on the BOU Claims as illustrated on Figure 6. All sampling was done in the summer of 1977 prior to August 19.

Streambed sediment samples were collected at 200 metre intervals on the streams indicated. Sample preparation and flourimetric analysis for uranium were done by Loring Laboratories of Calgary.

5.3 Results and Interpretation

The uranium concentrations in geochemical samples from streambeds on the BOU Claims showed a large variation and three anomalies, all having uranium values greater than 4.2 ppm, can be noted. When these sample stations are seen in light of a geological map of the claims, (see Figures 4 and 6), the geochemical anomalies obtained can be attributed to shale and granitic units which contain relatively high, but not anomalous, uranium concentrations. This interpretation is supported by data, noted in section 4.3 of this report, from detailed scintillometer surveys designed to check anomalies found through airborne gamma-ray spectrometry.

5.4 Conclusions and Recommendations

Uranium analysis of sediment samples from the selected streams on the BOU Claims outline several anomalies. Information from geologic maps imply that the anomalies are not significant and scintillometer surveys corroborate this conclusion. Thus, no further examination of anomalous areas is warranted on the basis of available information.

6.0 Geological Survey Report

6.1 Introduction

In conjunction with other exploration methods employed on the BOU Claims, the showings were mapped geologically at large scale. The geology of the claims as a whole is taken from G.S.C. Open File 499 by D.K. Norris (see Figure 4 and G.S.C. Open File 499) which updates G.S.C. Open File 399 and G.S.C. Map 10-1963.

Two showings were mapped as shown in Figures 6 and 7. Number one showing lies on BOU 80 within the group of BOU Claims and is submitted as representation work for that group.

6.2 Geology of the BOU Mineral Showings

Each of the two showings examined and mapped geologically on the BOU Claims are radiometric anomalies. While no material from either site has been assayed, gamma-ray spectrometer measurements indicate that

radioactivity is due primarily to uranium concentrations.

BOU Number one showing lies on BOU 80 (YA 5363) and was mapped on July 27, 1977, as presented on Figure 6. Table 3, part A, lists the units and formations mapped. While not visible to the naked eye, uranium mineralization occurs throughout exposures of the unit mapped as "silicified chert - conglomerate - breccia". The relationship of this unit and the other units mapped on the showing, to the formations described in G.S.C. Open File 499 (see Figure 4) has not been determined.

Radiometric values for this anomaly range from 5 to 15 times background values, and trenches as located on Figure 2, lie in close proximity to areas of highest radiometric values. Figure 8 is a geological sketch of the trench.

BOU Number two showing lies on portions of claims BOU 39, 40 41 and 42 (YA 5322 to YA 5325) and was mapped on July 26, 1977, as shown in Figure 9. The mapped area has been identified in G.S.C. Open File 499 as an outcropping of the Ordovician Road River Formation. Table 3, part B, lists units and formations mapped on the showing.

6.3 Conclusions and Recommendations

Preliminary geologic mapping of two showings on the BOU Claims have indicated that mineralization occurs throughout the host units. The thickness and areal extent of these units are masked by overburden. Thus, further exploration should be undertaken, both to locate extensions of the bedrock beneath the overburden, and to better define the extent of the mineralization already known.

Table 1

Anomalies Defined by Airborne Gamma Ray Spectrometry Over the BOU Claims

Yukon Territories
July, 1977

Anomaly (Flight Line Number/Location With Respect to Fiducials)	Peak Uranium Value/ Background Uranium Value	Shape of Uranium, Potassium and Thorium Peaks
131/7.25	33/13	distinct but weak U, low K & Th
131/8.0	30/15	weak, broad U, low K & Th
131/9.0	58/12	high, sharp U, low K & Th
131/15.5	36/16	broad area with sharp peak in middle, low to weak K, low Th
131/17.8	32/15	broad, weak U, low K & Th
131/19.3	26/9	broad, weak U, low K & Th
131/27.0	34/10	broad U, weak K, low Th
131/27.7	47/12	high, broad U, low, weak K, low Th
131/30.3	50/15	high, broad U, low K & Th
131/32.0	34/15	broad U, low to weak K, weak Th
131/33.0	30/12	weak U, high K & Th
131/39.7	30/18	weak, broad area, several sharp small peaks, weak to med. K low Th
131/42.2	31/16	distinct U, preceeded by high background, K depleted
131/43.0	42/15	broad, high U, low to weak K and low Th
131/43.3	34/16	weak U, weak K & Th
132/1.8	34/14	distinct jagged peak, weak K, low Th

Anomalies Defined by Airborne Gamma Ray
Spectrometry Over the BOU Claims

Yukon Territories
July, 1977

Anomaly (Flight Line Number/Location With Respect to Fiducials)	Peak Uranium Value/ Background Uranium Value	Shape of Uranium, Potassium and Thorium Peaks
132/4.2-3.4	30-20	area of high background, several peaks (sharp) to 30, high K but depleted at 132/4.1 to 4.2
132/9.2	31/14	weak U, medium to high K, weak Th
132/13.0	40/14	high sharp U, med.-high K, weak to medium Th
132/20.4	56/20	very high broad U, high K, but slightly depleted weak Th
132/22.0	34/18	weak broad area, a few sharp peaks, high K & med. Th
132/26.75	32/16	weak broad area, a few sharp peaks, high K & med. Th
132/29.0	30/16	weak U in area of higher background, high K, medium Th
132/34.1	45/15	high, sharp U, weak to medium K, low Th
132/35.25	40/18	broad, high U, weak to low K & Th
132/36.0	32/14	weak but distinct U, weak to low K & Th
132/44.1-36.4	38-18	Large area of high background and several sharp peaks, high K & weak to medium Th associated
132/50.0	35/18	sharp peak in area of high background, very high K, med. Th
132/55.0	34/16	weak, broad U, high K, weak Th

Anomalies Defined by Airborne Gamma Ray
Spectrometry Over the BOU Claims

Yukon Territories
July, 1977

Anomaly (Flight Line Number/Location With Respect to Fiducials)	Peak Uranium Value/ Background Uranium Value	Shape of Uranium, Potassium and Thorium Peaks
132/56.3-55.4	34-24/13	several small sharp peaks, very high K & medium Th
132/58.2	50/13	high broad U, medium to high K, weak Th
132/61.0	46-25/14	several high sharp U, most above 30-medium to high K, weak Th
132/68.1-66.7	36-26/15	several sharp peaks, very high K and medium Th
132/71.25	30/15	weak U in area of high background high K, medium Th
133/12.2	24/12	very weak U, distinct peak, high K, medium Th
133/30.85	32/12	sharp U, followed & preceeded by high background, high K, medium Th
133/39.9	28/14	weak U in area of increased background, high K & weak Th
133/50.1	43/12	high distinct U, low K & low Th
134/2.25	31/16	sharp peak, high K, medium Th
134/8.9 to 7.2	32-22/12	several distinct peaks, high K & Th associated
134/8.8	29/10	distinct U peak, weak K & Th
134/13.6	34/14	broad U, weak K, low K
134/14.0(-)	36/16	sharp U peak, low K & Th

Anomalies Defined by Airborne Gamma Ray
Spectrometry Over the BOU Claims

Yukon Territories
July, 1977

Anomaly (Flight Line Number/Location With Respect to Fiducials)	Peak Uranium Value/ Background Uranium Value	Shape of Uranium, Potassium and Thorium Peaks
134/15.25 to 14.3	34-26/15	several sharp U peaks, high K & Th
134/17.0	29/15	weak U, medium K, depleted slightly at peak, low Th
134/18.25	30/12	broad area of increased background, a couple of small peaks to 30, high K & Th
134/21.4	29/16	weak U K depleted slightly but still high, Th depleted - weak
134/22.0	32/15	sharp U peak, high K & Th
134/24.6	29/18	weak U, medium to high K, weak Th
134/26.6 to 25.8	32-24/15	several weak sharp peaks, very high K & Th
134/28.0 to 27.2	27/12	broad U peak, medium K & Th
134/35.1	40/15	broad U peak depleted K & Th
134/37.1	37/14	distinct U peak, high K & Th
134/41.1 to 39.8	30/20	several weak U peaks, high K & Th (background lower, before and after peaks)
134/45.1 to 43.5	30-21/19	several sharp U, high K & Th
134/50.8 to 49.0	33-26/20	several sharp U, high K & Th
134/51.1	30/15	weak, broad U, depleted K & Th, K & Th low

Anomalies Defined by Airborne Gamma Ray Spectrometry Over the BOU Claims

Yukon Territories
July, 1977

Anomaly (Flight Line Number/Location With Respect to Fiducials)	Peak Uranium Value/ Background Uranium Value	Shape of Uranium, Potassium and Thorium Peaks
135/2.4	31/13	weak, sharp U, weak K & Th
135/4.8	38/15	sharp U followed by high background, weak K & Th
135/4.9 to 5.9	33-26/20	several sharp, weak U, high K & Th
135/6.1	34/16	distinct U, high K, low Th
135/5.4	33/14	weak, jagged U, high K & Th
135/6.3	36/14	distinct U, weak to medium K, low Th
135/17.95	28/16	weak U, medium K, low Th
135/18.4	34/15	weak, sharp U, high K, weak Th
135/22.2 to 19.75	34-20/18	several weak U peaks, very high K, medium Th
135/23.2	32/14	sharp U peak, low K & TH also peak at 135/23.14 (similar)
135/24.5	40/20	distinct U peak, weak K & Th
135/27.0	37/18	broad U, depleted K & Th, high K & Th before and after peak
135/27.6	34/18	jagged U peak, high K & Th
135/33.0	33/15	weak U peak, high background proceeding peak, low after peak, high K, weak Th
135/43.5	30/18	2 weak, sharp peak, high K, weak Th

Anomalies Defined by Airborne Gamma Ray
Spectrometry Over the BOU Claims

Yukon Territories
July, 1977

Anomaly (Flight Line Number/Location With Respect to Fiducials)	Peak Uranium Value/ Background Uranium Value	Shape of Uranium, Potassium and Thorium Peaks
135/44.8	46/15	high, broad U, weak K & Th
135/46.3	36/14	sharp peak, proceeded by gradual increase, some low altitude effect, medium K, low Th
135/49.7	30/15	broad, weak U with several small, sharp peaks, very high K, medium Th
135/51.9	30/12	sharp U peak, medium K, weak Th
135/53.9	35/15	distinct U in area of increased background, K & Th high
136/4.0 to 5.5	34-30/14	4 distinct peaks, K high, Th medium, at 135/5.5 K & Th seem to be depleted
136/8.4 to 9.8	27 to 20/15	several sharp, small peaks, very high K, weak Th
136/10.7	26/15	weak U, weak to medium K, low Th
136/11.3	34/14	weak, broad U, high K & Th
136/12.6	32/20	sharp peaks, high K & Th
136/14.8	32/14	weak, broad U, sharp peak in middle, weak K & Th
136/16.0	28/14	weak, broad U, sharp peak in middle, weak K & Th
136/16.6	27/12	weak, broad U, sharp peak in middle, weak K & Th
136/17.4	36/12	broad U peak, weak K & Th

Anomalies Defined by Airborne Gamma Ray Spectrometry Over the BOU Claims

Yukon Territories
July, 1977

Anomaly (Flight Line Number/Location With Respect to Fiducials)	Peak Uranium Value/ Background Uranium Value	Shape of Uranium, Potassium and Thorium Peaks
136/18.3	28/16	broad, weak U, high K & Th
136/19.9	36/16	sharp peak in area of increased background, high K & Th
136/21.4 to 27.2	28 to 24/14	several small lumps U, high K, weak Th
137/7.3 - 44	30 to 20/14	several weak U, medium to high K, weak to medium Th
138/2.2	27/12	weak broad U, high K, weak Th
138/2.9	28/12	weak, broad U, high K, medium Th
138/4.0	30/18	weak, sharp peak in area of high background, high K
138/5.4	31/18	weak, sharp peak in area of high background, high K
138/11.7	34/14	broad U, weak K, low Th
138/15.0 to 14.0	26 to 20/16	several weak peaks, high K & Th
138/17.4	30/18	weak U, low Th, weak K
138/21.8	32/11	sharp U peak, high K, weak Th
138/26.1 to 24.9	38 to 22/20	several sharp peaks, very high K & Th
138/26.7	34/11	a few sharp peaks, high K & Th association
138/33.8	29/10	broad U, weak K & Th
138/37.3 to 38.0+	31 to 24/20	several weak U, high K & Th

Table 2

SCINTILLOMETER SURVEYS OF ANOMALIES
ON THE BOU CLAIMS
1977

ANOMALY NUMBER	TRAVERSE NUMBER	DATE OF TRAVERSE	SCINTILLOMETER RESPONSE IN COUNTS PER SECOND OVER ANOMALY (BACKGROUND/HIGH)	LITHOLOGY
131/7.25	63A-N	July 4	100/120	black & tan shales
131/8.0	63A-N	July 4	90/125	grey shales & high background conglomerates
131/9.0		Aug. 1 Aug. 9	240/600 225/800	fractured, cemented chert faulted, fractured black cherts, spotty radioactive highs
	208A-N	Aug. 24	75/90	shale, chert rubble only. surveyed location of trench
131/15.5	109-110N, 70D-2	July 21	60/100	high U limestone
131/17.8	103D	July 31	90/100	black shale
131/19.3	102D	July 31	75/75	black shale
131/27.7	101D	July 31	75/75, 50/80	black shale & limestone
131/30.3	109-110N 70D-2	July 21	60/100, 70/100	limestone & shale
131/32.0	61N, 32D	July 3	60/175, 70/100	siltstone & shale
131/33.0	61N	July 3	75/120	shale
131/39.7	61N	July 3	75/150	siltstone, shale
131/42.2	86D	July 28	100/110	shale
131/43.0	92D	July 29	60/90	limestone, high U
131/43.3	87D, 154N	July 28, Aug. 11	30/300, 50/400	sandstone, small area
132/1.8	159N	Aug. 12	30/150	brecciated chert

ANOMALY NUMBER	TRAVERSE NUMBER	DATE OF TRAVERSE	SCINTILLOMETER RESPONSE IN COUNTS PER SECOND OVER ANOMALY (BACKGROUND/HIGH)	LITHOLOGY
132/4.2-3.4	78D, 117N	July. 27, 25	25/75, 80/110	red & brown shale
132/13.0	134N, 181N	Jul. 30, Aug. 18	100/150 100/135	black shale
132/20.4	134N, 180N	July 30, Aug. 18	110/160 100/120	black shale
132/29.0	117N	July 25	75/80	red shales
132/34.1	119N, 120N	July 25	100/150	local anomaly, fractured shale & chert
132/35.25	99D, 146D	July 31, Aug. 15	100/150	black, cherty shales
132/36.0	116-117N	July 25	80/110	brown, red & black shales
132/44.1-36.4	134N 116-117N 180N (in part)	July 30, 25 Aug. 18	50/90	red & black shales
132/50.0	93D	July 30	60/75	brown & grey shales
132/55.0	116-117N	July 25	75/150	black & brown shales
132/56.3-55.4	100D	July 31	90/100	red & brown shales
132/58.2	121N, 72D	July 25	75/125	fractured, graphitic shale
132/60.1	124N	July 26	75/350	fractured, graphitic shales
132/61.0	72D	July 25	200/300	black shales
132/68.1-66.7	94-95D	July 30	65/75	brown & black shales
133/50.1	62N	July 3	60/175	limestone, shaley fractured and folded
134/2.25	97D	July 30	75/90	shale rubble
134/8.8	155N	Aug. 11	150/200	sandstone, limited extent
134/13.6	85D, 155N	July 27, Aug. 12	150/200	sandstone, limited extent

ANOMALY NUMBER	TRAVERSE NUMBER	DATE OF TRAVERSE	SCINTILLOMETER RESPONSE IN COUNTS PER SECOND OVER ANOMALY (BACKGROUND/HIGH)	LITHOLOGY
134/14.0	87D, 175N	July 28, Aug. 16	50/120	limestones & shale
134/15.25-14.3	81-82D	July 27	100/100	shales
134/17.0	89D	July 29	60/75	shales, cherty
134/18.25	97D	July 30	150/175	black shales
134/21.4	105D	Aug 1	75/90	shaley soil
134/22.0	97D	July 30	75/90	shales
134/24.6	90D	July 29	80/120	brown, black, red shales
134/27.2	132N	July 30	75/160	black fractured chert
134/28.0	133N	July 30	60/90	shale and limestones
134/35.1	129N, 176N	July 29, Aug. 16	70/120 55/100	high "U" limestone
134/37.1	147D	Aug. 16	100/100, 75/90	red & brown shales & cherty black shales
134/41.1-39.8	97D, 104D	July 30, Aug. 1	75/100 75/90	shales and shaley soil
134/45.1-43.5	104D, 97D	Aug. 1, July 30	75/100 74/90	shales and shaley soil
134/50.8-49.0	128-129N	July 29	80/110	red & brown shales
135/2.4	127N	July 27	60/100	red & black shale rubble
135/4.8	128N	July 27	75/100	red & black shale rubble
135/4.9-5.9	128-129N	July 29	75/100	red & black shale rubble
135/6.1	128-129N	July 28	75/100	red & black shale rubble
135/5.4	128-129N	July 29	75/100	red & black shale rubble

ANOMALY NUMBER	TRAVERSE NUMBER	DATE OF TRAVERSE	SCINTILLOMETER RESPONSE IN COUNTS PER SECOND OVER ANOMALY (BACKGROUND/HIGH)	LITHOLOGY
135/6.3	128N, 177N	July 28, Aug. 16	120/200	grey & brown sandy shale
135/17.95	156N	Aug. 12	75/150	black shales
135/22.2-19.75	123N, 127N	July 26, July 27	70/100 75/175	brown shales, chert rubble
135/23.2	91D	July 29	100/150	black, cherty soil fragments
135/24.5	91-92D	July 29	75/100	black shale & cherty talus
135/27.0	122-123N	July 26	60/110	limestone, high "U"
135/27.6	123N	July 26	80/100	red & brown shales
135/43.5	122-123N		90/120	red & brown shales
135/44.8	126N, 178N	July 27, Aug. 16	75/105	high "U" limestone & shales
135/46.3	92D	July 29	80/100	black shales
135/51.9	79D	July 27	80/100	black cherty shales
136/4.0-5.5	108N	July 21	70/70	cherty shale rubble
136/8.4-9.8	106N, 95D	July 21, July 30	90/100 75/100	brown shale rubble
136/10.7	106D	Aug. 1	90/100	black cherty shales
136/11.3	107D	Aug. 1	100/100	brown shales
136/12.6	72D	July 25	125/300	black shaley soil
136/14.8	77D	July 26	125/150	black slatey argillite
136/16.0	75D	July 26	60/75	black slatey argillite
136/16.6	74D	July 26	75/100	limestones & shales
136/17.4	74D	July 25	70/100	cherty shale talus
136/18.3	70D	July 21	85/110	brown shales
136/19.9	106N	July 21	90/100	red & buff shales

ANOMALY NUMBER	TRAVERSE NUMBER	DATE OF TRAVERSE	SCINTILLOMETER RESPONSE IN COUNTS PER SECOND OVER ANOMALY (BACKGROUND/HIGH)	LITHOLOGY
136/21.4-27.2	96D	July 30	75/100	red & buff shales
137/7.3-4.4	107-108N	July 21	70/75	siliceous shales
138/2.2	76D	July 26	60/75	brown shales
138/2.9	73D	July 26	80/100	limestone & brown shale
138/4.0	70D	July 21	85/110	brown shales
138/11.7	183N	Aug. 18	90/130	grey & blue shales
138/15.0-14.0	126D	Aug. 9	70/100	black & brown shale rubble
138/17.4	182N	Aug. 18	100/120	black shales
138/21.8	135D	Aug. 12	80	interbedded shales
138/26.1-24.9	69D 104N	July 21	100/110	red & brown shales
138/26.7	103N	July 21	90/100	tan & red shales
138/37.3-38.0	125D	Aug. 9	75/100	black & brown shale rubble

Table 3

Table of Formations
BOU Claims, [illegible]

A Number One Showing

Formation	relationship unknown	Unit	relationship unknown	Period
Kingak		- silicified chert, conglomerate breccia		Lower Cretaceous and Jurassic
Kayak		- cherty shale - sandstone and shale - limestone and shale - cherty quartzite		Mississippian

B Number Two Showing

Formation	Unit	Period
Road River	limestone shale chert sandstone	Ordovician

BOU 1 - 507 incl.

138°00'

68°24'

68°20'

138°00'

0 3000 6000

FEET

AQUITAINE COMPANY OF CANADA LTD.	
BONNET LAKE AREA YUKON TERRITORY BOU CLAIMS 1 - 507 incl. 117A6	
INTERPRETED BY :	CONTOUR INTERVAL :
DATE : August, September 1976	SCALE :
REVISED :	FILE NO. :

FIGURE 1

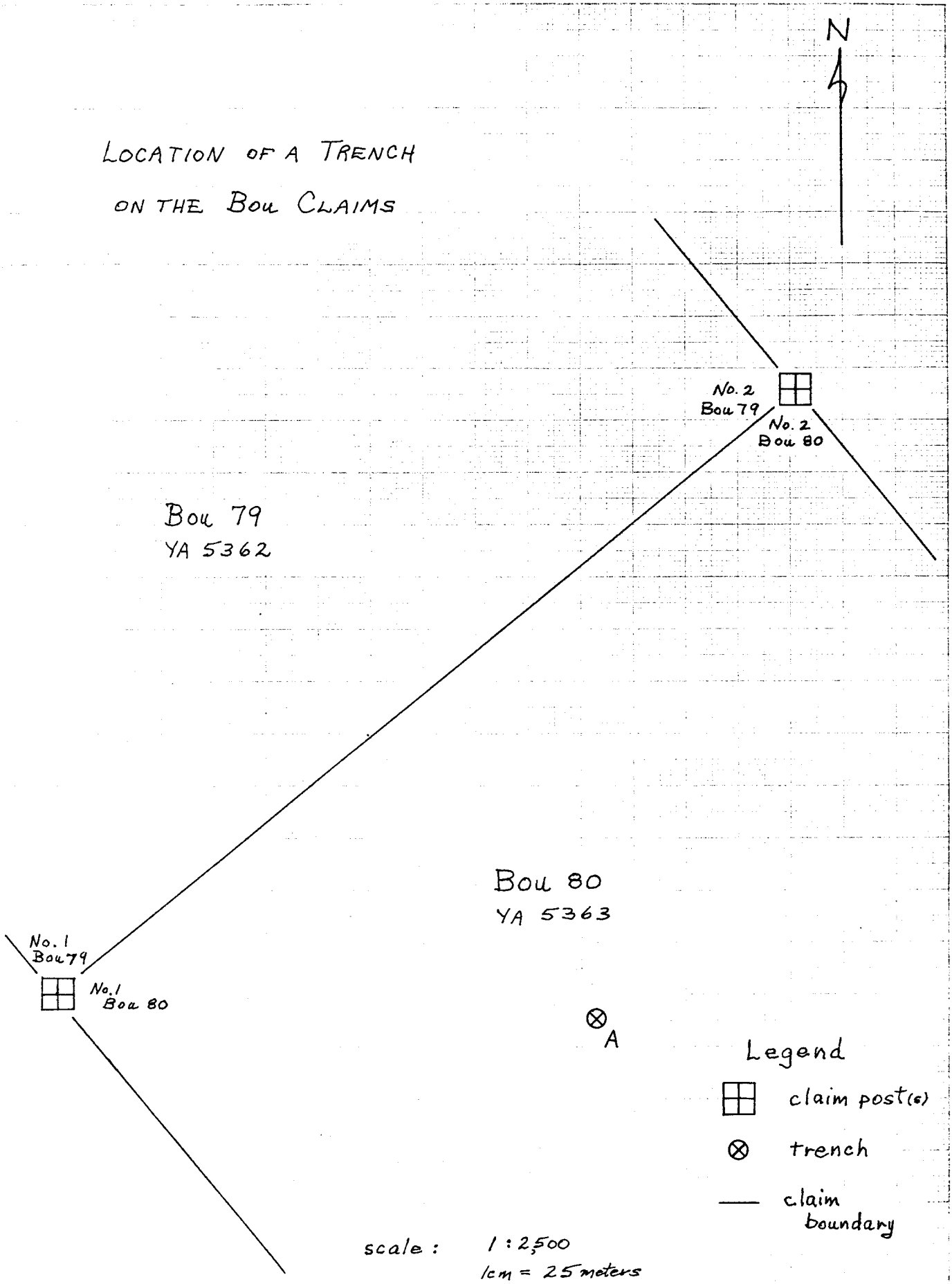

LOCATION OF A TRENCH
ON THE Bou CLAIMS
N
No. 2
Bou 79
No. 2
Bou 80
Bou 79
YA 5362
Bou 80
YA 5363
No. 1
Bou 79
No. 1
Bou 80
A
Legend
claim post(s)
trench
claim
boundary
scale : 1 : 2,500
1cm = 25 meters

FIGURE 2

68°40'

138°00'

68°40'

68°35'

68°35'

138°15

68°30'

137°45'

68°30'

68°25'

68°25'

OUTLINE OF BOU CLAIMS

68°20'

68°20'

68°15'

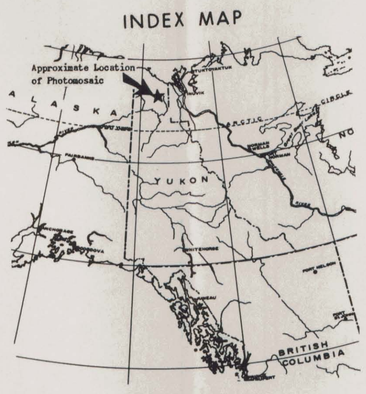
68°15'

138°15°

138°00'

137°45'

INDEX MAP



LEGEND

FLIGHTLINE WITH FIDUCIAL POINTS

ANOMALY BETWEEN FIDUCIAL POINTS AT FIDUCIAL POINT

GROUND INVESTIGATION OFF FLIGHT LINE ON FLIGHTLINE, AT ANOMALY

GROUND TRAVERSE

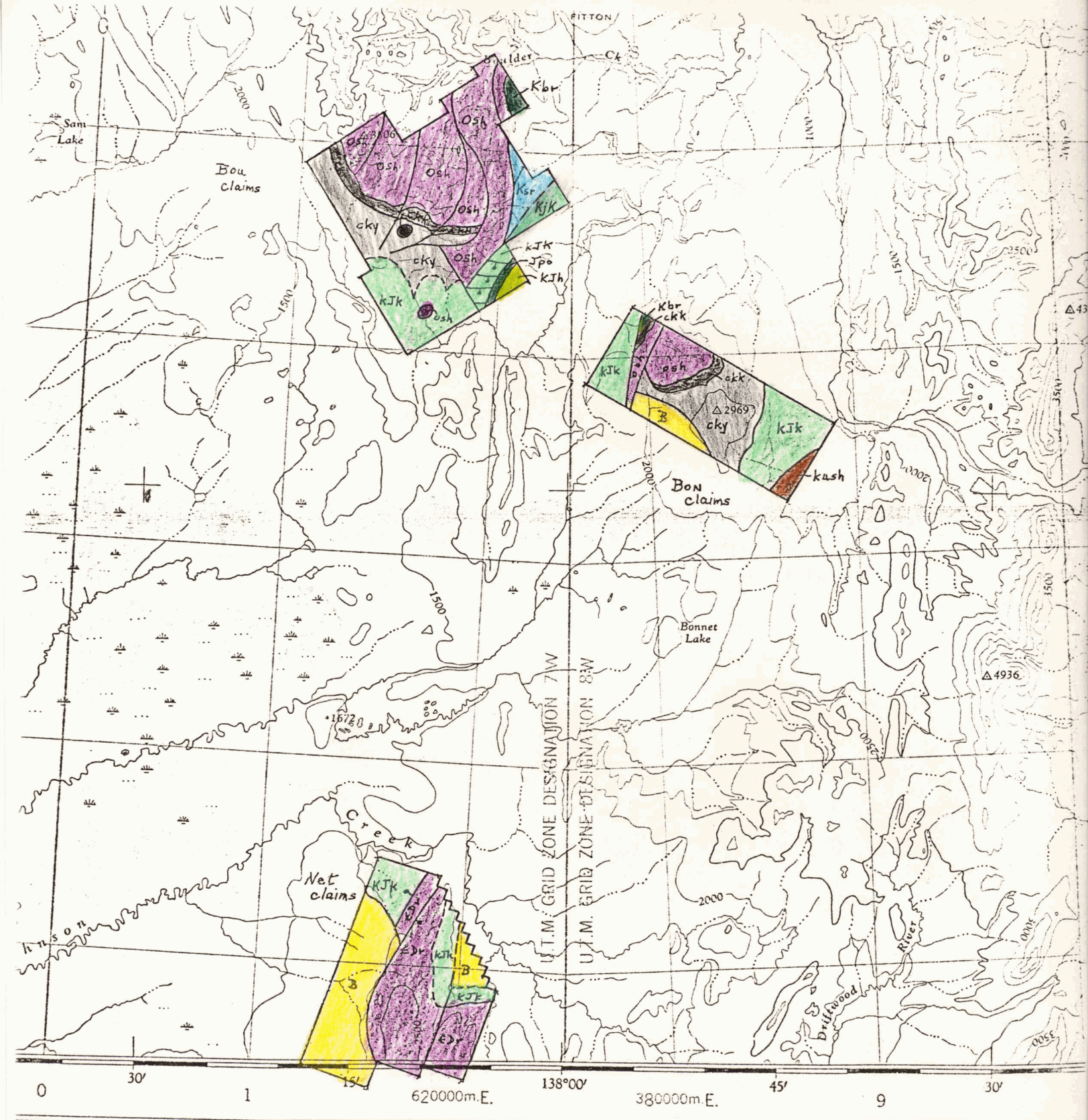
MILES 1 0 1 2 3 MILES

METRES 1000 500 0 1000 2000 3000 4000 METRES

AQUITAINE COMPANY OF CANADA LTD.

PHOTOMOSAIC OF 117 A CENTRE SOUTH
AIRBORNE SPECTROMETER SURVEY
SCINTILLOMETER SURVEYS OF ANOMALIES
OF THE BOU CLAIMS

DATE:	NTS:	FIGURE No.:
SEPT. 1977	PARTS OF 117A/6,7,10,11	3



RANCH,
YS, 1962

GEOLOGY of the Bou, BON and Net CLAIMS

BLOW RIVER

YUKON TERRITORY – NORTHWEST TERRITORIES

117 A

Scale 1:250,000 Échelle

(after D.K. Norris, unpublished data, now available as G.S.C. O.F. 499)

Miles 5 0 5 10 15 20 Milles

Kilometres 5 0 5 10 15 20 25 30 Kilomètres

Établie et imp
MINISTÈRE
photographies

FIGURE 4

Legend

Aquitaine Company of Canada Ltd. - Claim Blocks, Blow River Area, Y.T.

B	(755)	Pediment surfaces, mostly with thin cover of colluvium and/or organic deposits

Lower Cretaceous and Jurassic

Ksr	(737½)	unnamed chert, quartzite, lithic pebble conglomerates of Albian age.
Kbr	(739)	unnamed flyschoid shales and siltstones of Aptian or Albian age.
Kush	(745½)	"upper shale-siltstone division" (see Jeletzky, G.S.C. Paper 61-9)
Kbs	(736½)	"bluish grey shale division" (see Jeletzky, G.S.C. Paper 61-9)
Klss	(746)	"lower sandstone division" (see Jeletzky, G.S.C. Paper 61-9)
KJh	(738½)	Husky Formation, shale and siltstone
Jpo	(375)	Porcupine Formation, buff sandstone of Late Jurassic age.
KJk	(751)	Kingak Formation, shale and siltstone, regionally of Jurassic and Early Cretaceous age.

Mississippian

Cky	(734½)	Kayak Formation, shale, siltstone, coal
Ckk	(747½)	Kekiktuk Formation, chert and quartzite pebble and cobble conglomerate

Lower Devonian, Silurian, Ordovician

OSh=€Dr	(742)	Road River Formation in Driftwood Hills and unnamed shale, siltstone and chert in Barn Mountains.

Fault, solid circle on downthrown wall

Anticline

Syncline

x 60° Outcrop examined on the ground; with attitude

xCV Fossil Locality with paleontological age (see Norris, D.K., G.S.C. Paper 76-1B, p. 264-265).

D. K. Norris

138°00'
68°30'

138°30'
68°30'

2500

2000

2000

3506

1500

Boulder

APPROXIMATE OUTLINE OF THE BOU CLAIMS

68°15'
138°30'

68°15'
138°00'

LEGEND

CENOZOIC

QUATERNARY
15 Modern Mackenzie delta

TERTIARY AND QUATERNARY
14 Mud, silt, sand, coal

MESOZOIC

CRETACEOUS
UPPER CRETACEOUS
13 Shale, sandstone

LOWER CRETACEOUS
12 Shale, sandstone

JURASSIC
11 Shale, sandstone, may include Triassic in Arctic coastal plain

TRIASSIC
UPPER TRIASSIC
10 Shale, limestone

PALAEOZOIC

CARBONIFEROUS AND PERMIAN
9 Limestone, shale, sandstone, conglomerate, chert

DEVONIAN
UPPER DEVONIAN
8 Shale, sandstone, conglomerate, may include Middle Devonian in Peel Plateau

MIDDLE DEVONIAN
7 Limestone, shale

CAMBRIAN, ORDOVICIAN AND SILURIAN
6 Graptolitiferous Road River Formation; includes Lower Devonian in Ogilvie Mountains and Knorr Range

5 Limestone, dolomite

CAMBRIAN
UPPER CAMBRIAN
4 Conglomeratic mudstone with iron formation

CAMBRIAN
3 Limestone, shale, siltstone, evaporites, includes Macdougal Group

PRECAMBRIAN

PRECAMBRIAN AND CAMBRIAN (?)
2 Clastic rocks; includes 2a, Katherine Group; 2b, Tindir Group, and 2c, Neruokpuk Formation

1 Phyllite, quartzite

A Granitic intrusions

B Altered basic lava and intrusions

Geological contact assumed

Mineral occurrence ×

140°				136°
69°	13	14	15	16 69°
	12	11	10	9
	5	6	7	8
	4	3	2	1
68°	13 14 15 16	13 14 15 16		68°
	12 11 10 9	12 11 10 9		
	5 6 7 8	5 6 7 8		
	4 3 2 1	4 3 2 1		
67°				67°
140°				136°

117A
116O
116P

SCALE 1 : 50,000

1 ⅛ inch to 1 mile approximately

MILES 1 0 1 2 3 MILES

METRES 1000 500 0 1000 2000 3000 4000 METRES

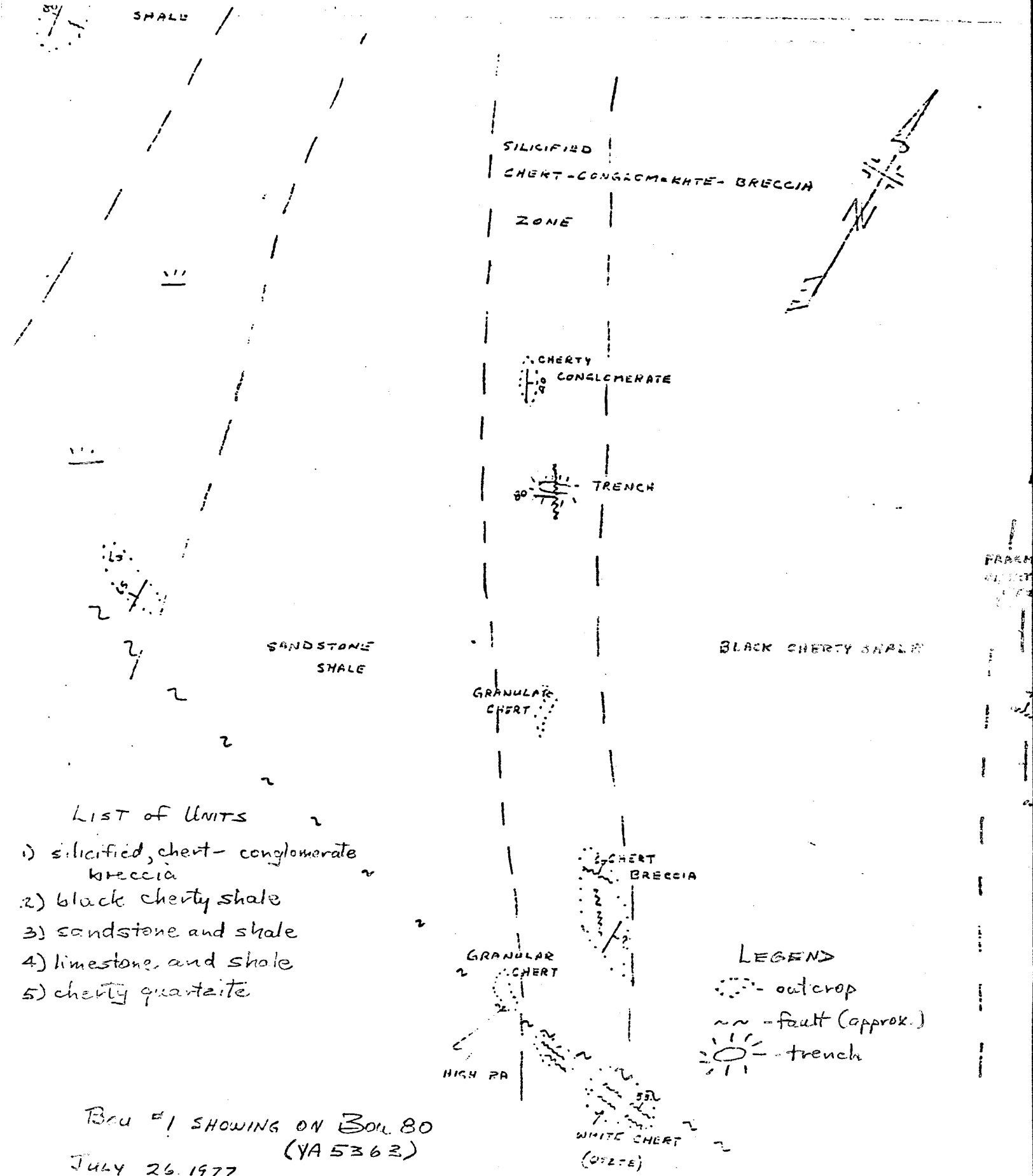
Universal Transverse Mercator Projection

AQUITAINE COMPANY OF CANADA LTD.

GEOCHEMICAL SURVEY

PPM U_3O_8 AT SAMPLE LOCATION

DATE	NTS	FIGURE No.
1977	117A/6E	5



List of Units

1) silicified, chert- conglomerate breccia
2) black cherty shale
3) sandstone and shale
4) limestone and shale
5) cherty quartzite

LEGEND

- outcrop
- fault (approx.)
- trench

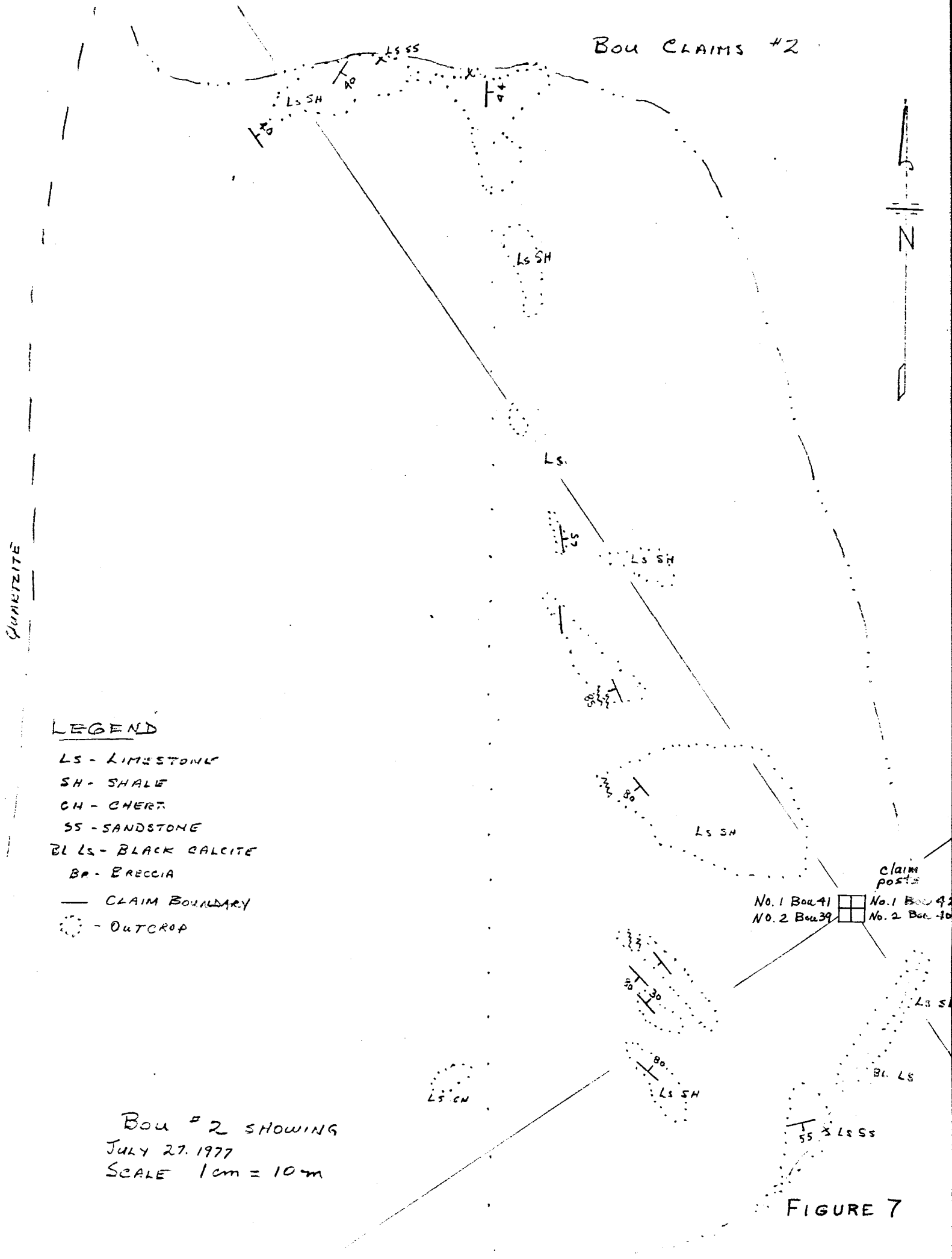
BAU #1 SHOWING ON BAU 80
(YA 5363)

JULY 26, 1977

SCALE 1 cm = 10 m

(For location on Bau 80 see:
"Location of a trench on the Bau CLAIMS")

FIGURE 6



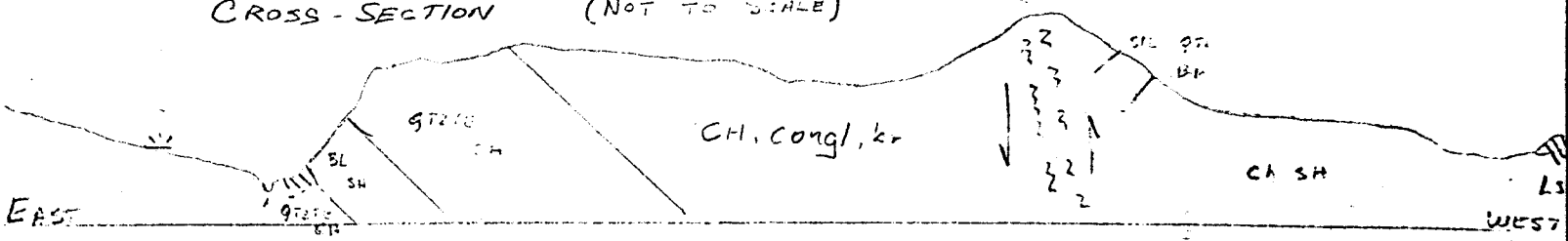
BOU #2 SHOWING
JULY 27. 1977
SCALE 1cm = 10m

FIGURE 7

GEOLOGY of a TRENCH ON BOW NUMBER ONE SHOWING

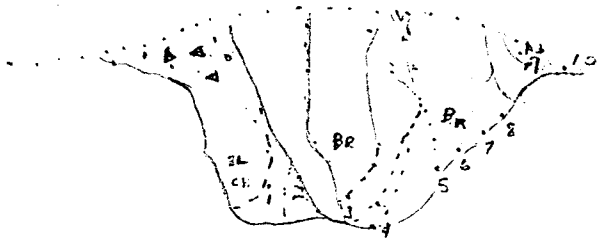
FACING S
ON 0400 L

CROSS-SECTION (NOT TO SCALE)



TRENCH S SIDE FACING S

SCALE: 1 inch = 6 feet



site -	1.	2	3	4	5	6	7	8	9	10
C/S -	600	500	450	850	850	725	450	300	320	370

TRENCH N SIDE FACING N

SCALE: 1 inch = 6 feet

LEGEND

CH QTZTE - cherty quartzite
BL SH - black shale
CH, congl, br - silicified chert, conglomerate, breccia
BL CH - black chert
CH SH - cherty shale
LS - limestone
Δ - breccia

FIGURE 8

Figure 9

Airborne Gamma-Ray Spectrometer Profiles of the BOU Claims

Part 1 of 3 parts

Lines 131
132

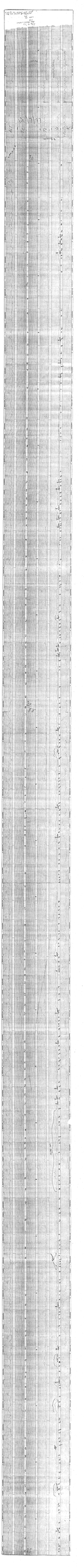
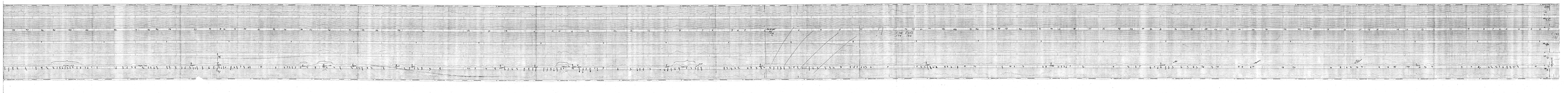


Figure 9

Airborne Gamma-Ray Spectrometer Profiles of the BOU Claims

Part 2 of 3 parts

Lines 133 to 137



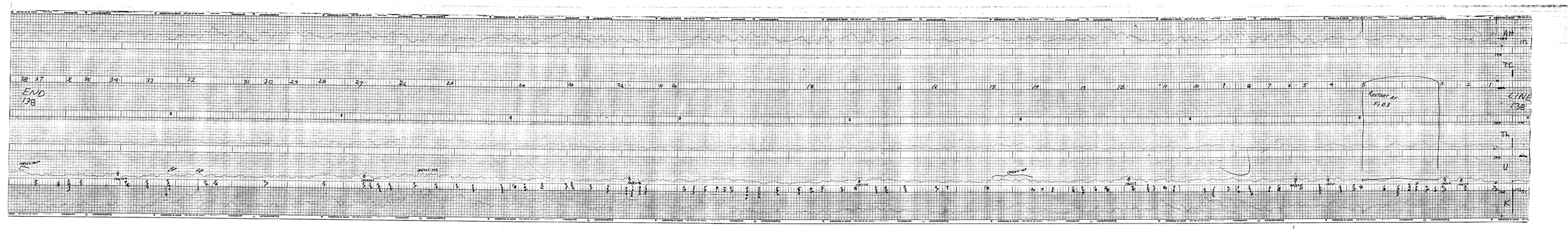
END
TO
END
TO
END
TO

Figure 9

Airborne Gamma-Ray Spectrometer Profiles of the BOU Claims

Part 3 of 3 parts

Line 138


END
138
RESTART AT
F103
LINE
138
AIR
TC
TH
U
K